

SVKM's
D. J. Sanghvi College of Engineering

Program: B.Tech in Biomedical Engineering

Academic Year: 2022

Duration: 3 hours

Date: 06.01.2023

Time: 10:30 am to 01:30 pm

Subject: Deep Learning (Semester VII)

Marks: 75

Question No.		Max. Marks
Q1 (a)	Write down difference between learning and optimization with example? OR i. What is the activation function of McCulloch-Pitts neuron? ii. Advantages of Convolutional neural network	[05] [03] [02]
Q1 (b)	Explain Auto encoders with example?	[10]
Q2 (a)	i. Explain Backpropagation through time (BPTT) with example? ii. Short note of Feed Forward Neural Network? OR What is long short-term memory networks architecture?	[06] [04] [10]
Q2 (b)	How does the learning rate affect the performance of a Gradient Descent algorithm?	[05]
Q3 (a)	Explain GoogLeNet with example?	[05]
Q3 (b)	Discuss Error back propagation algorithm in detail? OR Explain Multilayer perceptron with example?	[10] [10]
Q4 (a)	Define Convolution, pooling and dropout, explain with example? OR Give detailed view of RNN architecture?	[08] [08]
Q4 (b)	What are the different perceptron learning rule? Explain	[07]
Q5 (a)	Solve any one i. Explain in detail about the concept of gradient based learning? ii. What are the different application of GAN? Explain application of GAN in medical image analysis.	[10] [10]
Q5 (b)	Define convergence, explain in detail with example?	[05]